The listing of claims which follows replaces all previous versions.

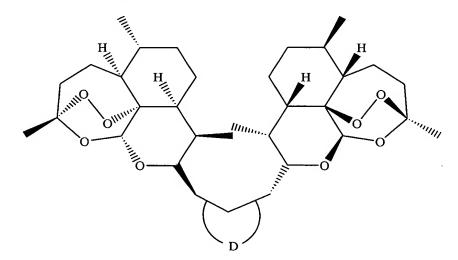
1. (Original) A compound including resolved enantiomers, diasteriomers, solvates and pharmaceutical acceptable salts thereof, said compound having the formula:

wherein if  $R_1$  is hydrogen or -OH then  $R_2$  is AX, and if  $R_2$  is hydrogen or -OH then  $R_1$  is AX, and A may be absent or A may be any alkyl or aryl group where X is hydrogen, a phosphate group, a phosphonic acid derivative group, an alcohol group, a carboxylic acid group, an ether group, an ester group, a nitrile group, a sulfone group, a sulfide group, an amino acid derivative group, an amine group, and amide group, an aldehyde group, or an aromatic group.

- 2. (Original) The compound of claim 1, wherein said alcohol group is represented by  $-R^3OH$ , wherein  $R^3$  is a straight chained or branched alkyl group having 1 to 5 carbon atoms.
- 3. (Original) The compound of claim 1, wherein said carboxylic acid group comprises -R<sup>4</sup>COOH wherein R<sup>4</sup> is at least one saturated or unsaturated alkyl group, an aryl group an ester group, an ether group or a combination thereof.
- 4. (Original) The compound of claim 3, wherein R<sup>4</sup> is an ester group represented by –R<sup>5</sup>COO-, wherein R<sup>5</sup> is bonded to the carboxylic acid group and has 0 to 5 carbon atoms.

- 5. (Original) The compound of claim 3, wherein R<sup>4</sup> is an ether group represented by R<sup>6</sup>-O-R<sup>7</sup> wherein R<sup>6</sup> and R<sup>7</sup> are, independently, an alkyl or allyl group having 0 to 5 carbon atoms.
- 6. (Original) The compound of claim 1, wherein said aromatic group comprises Ar-(R<sup>8</sup>)<sub>m</sub>, wherein Ar represents a benzene ring, and m is 1 or 2.
- 7. (Original) The compound of claim 6, wherein  $R^8$  is  $-CH=CH_2$ , or -COOH.
- 8. (Original) The compound of claim 1, wherein the ester group is represented by  $-CR^9$ , where  $R^9$  is an ester of nicotinic acid, an ester of isonicotinic acid, or the ester group is represented by  $-CO(C=O)R^{9a}$ , where  $R^{9a}$  is  $Ph(CY_3)_o$ , where o is 1 or 2, and Y may be, independently, H, F, Cl, Br, or I, or where  $R^{9a}$  is a substituted heterocyclohexane compound.
- 9. (Original) The compound of claim 1, wherein the phosphonic acid derivative group is represented by  $-CO-P(R^{10})(O)OH$ , where  $R^{10}$  is an alkyl group having 0 to 5 carbon atoms.
- 10. The compound of claim 1, wherein the phosphate group is COP(O)(OR<sup>11</sup>)<sub>2</sub>, where R<sup>11</sup> is an alkyl group having 0 to 5 carbon atoms, or a phenyl group.
- 11. (Original) The compound of claim 1, wherein the nitrile group is R<sup>12</sup>CN, where R<sup>12</sup> is an alkyl group having 0 to 5 carbon atoms.
- 12. (Original) The compound of claim 1, wherein the sulfone group is  $-CS(=O)_2R^{13}$ , wherein  $R^{13}$  is  $-N(CH_3)_2$ ,  $-OR^{14}$ , or  $-Ph-COOR^{14}$ , where  $R^{14}$  is H,  $CH_3$ , or  $-CH(CH_3)_2$ .
- 13. (Original) The compound of claim 1, wherein the sulfide group is  $CSR^{15}$ , where  $R^{15}$  is pyridine or –Ph-COOR<sup>16</sup>, where  $R^{16}$  is H or  $CH_3$ .
- 14. (Original) The compound of claim 1, wherein the amino acid derivative group is  $-COC(=O)CHR^{21}N(R^{17})_2$ , where each  $R^{17}$  group is, independently, H or CH<sub>3</sub> and  $R^{21}$  is hydrogen or any other substituent.

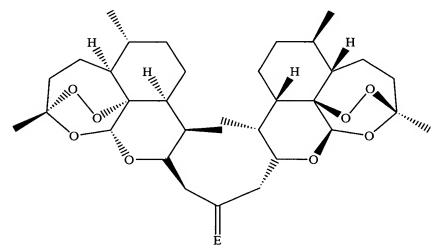
- 15. (Original) The compound of claim 1, wherein the amine group is  $CN(R^{18})_2$ , where each  $R^{18}$  group is, independently, H, an alkyl group, or a phenyl group.
- 16. (Original) The compound of claim 1, wherein the ether group is C–O–CR<sup>19</sup>, where R<sup>19</sup> is a substituted pyridine.
- 17. (Original) The compound of claim 1, wherein the amide group is  $(C=O)N(R^{20})_2$ , or  $-CH_2(C=O)N(R^{20})_2$  where each  $R^{20}$  is, independently, H or  $CH_2CH_2N(CH_3)_2$ .
- 18. (Original) A compound including resolved enantiomers, diasteriomers, solvates and pharmaceutical acceptable salts thereof, said compound having the formula:



where D forms a heterocyclic ring having 3 to 5 atoms.

- 19. (Original) The compound of claim 18, wherein the heterocyclic ring is a 3-membered ring and one of the atoms in the ring is oxygen.
- 20. (Original) The compound of claim 18, wherein the heterocyclic ring is a 5-membered ring and two of the atoms in the ring are oxygen.
- 21. (Original) The compound of claim 20, wherein the heterocyclic ring is substituted with an oxygen atom.

- 22. (Original) The compound of claim 21, wherein another atom in the 5-membered ring is a sulfur or a phosporous atom.
- 23. (Original) The compound of claim 22, wherein the 5-membered ring is substituted with 1 or 2 oxygen atoms bonded to the sulfur atom.
- 24. (Original) A compound including resolved enantiomers, diasteriomers, solvates and pharmaceutical acceptable salts thereof, said compound having the formula:



where E is H, O, NR, CH<sub>2</sub> or S wherein R may be hydrogen, alkyl, aryl or any other substituent.

25. (Original) The compound of claim 1 wherein if R<sub>1</sub> is H or -OH then

 $\mathsf{R}_2$  is  $\text{and if } \mathsf{R}_2 \text{ is OH or H then } \mathsf{R}_1 \text{ is }$  OH

26. The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

 $R_2$  is OH or H then OH and if

$$R_1$$
 is  $O$  OH

$$\mathsf{R}_2 \text{ is } \mathsf{RO} \\ \mathsf{RO}$$

wherein R is hydrogen or a methyl group when n is 0 or 2.

- 28. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then  $R_2$  is R— and if  $R_2$  is -OH or H then  $R_1$  is R— wherein R may be  $CH_2$ =CH or COOH.
- 29. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then  $R_2$  is  $\stackrel{\frown}{\sim}$  and if  $R_2$  is -OH or H then  $R_1$  is
- 30. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then  $R_2$  is OH and if  $R_2$  is -OH or H then  $R_1$  is OH
  - 31. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then

R2 is 
$$O$$
 and if  $R_2$  is -OH or H then  $R_1$  is  $O$ 

$$R_2$$
 is  $N \oplus \bigcirc$ 

and if  $R_2$  is -OH or H then  $R_1$  is

33. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then

$$R_2$$
 is and if  $R_2$  is -OH or H then  $R_1$  is  $N_{+}$ 

34. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then

$$R_2$$
 is  $\overset{O}{\sim}$   $\overset{O}{\sim}$  and if  $R_2$  is -OH or H then  $R_1$  is  $\overset{O}{\sim}$   $\overset{O}{\sim$ 

- 36. (Currently amended) The compound of claim 1, wherein if  $R_1$  is H then  $R_2$  is -OH.
  - 37. The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2 \text{ is} \qquad \text{and if } R_2 \text{ is -OH or H then } R_1 \text{ is} \\ N \oplus \bigcirc$$

- 38. (Original) The compound of claim 1, wherein if  $R_1$  is H then  $R_2$  is carboxylic acid.
  - 39. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2$$
 is  $O$  and if  $R_2$  is -OH or H then  $R_1$  is  $O$  HO

40. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2$$
 is  $N$  and if  $R_2$  is -OH or H then  $R_1$  is  $N$ 

42. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

43. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2 \text{ is} \overset{\longleftarrow}{\circ} \\ 0 \overset{\longleftarrow}{\circ} \\ 0 \overset{\longleftarrow}{\ominus} \\ 0 \overset{\longleftarrow}{\circ} \overset{\longleftarrow}{\circ} \\ 0 \overset{\longleftarrow}{\circ} \overset{\longleftarrow}{\circ} \\ 0 \overset{\longleftarrow}{\circ} \overset{\longleftarrow}{\hookrightarrow} \overset$$

44. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then

45. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then

$$R_2$$
 is  $O$  O OMe and if  $R_2$  is -OH or H then  $R_1$  is  $O$  OMe OMe

47. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$CF_3$$
 and if  $R_2$  is -OH or H then  $R_1$  is  $CF_3$ 

48. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$\mathsf{R}_2 \text{ is} \overset{\mathsf{O}}{\longleftarrow} \mathsf{N} \qquad \text{and if } \mathsf{R}_2 \text{ is -OH or H then } \mathsf{R}_1 \text{ is} \overset{\mathsf{O}}{\longleftarrow} \mathsf{N}$$

49. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then

$$R_2$$
 is  $O$  and if  $R_2$  is -OH or H then  $R_1$  is  $O$ 

50. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2$$
 is  $O$  and if  $R_2$  is -OH or H then  $R_1$  is  $O$  OR

51. (Original) The compound of claim 50 wherein R is a methy or ethyl group.

$$R_2$$
 is  $\begin{picture}(20,0) \put(0,0){\line(0,0){100}} \put(0,0){\line$ 

- 53. (Original) The compound of claim 52 wherein R is a methy group.
- 54. (Original) The compound of claim 52 wherein R is an iso-propyl group.
  - 55. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2$$
 is  $\bigvee_{O_2S \longrightarrow NMe_2}$  and if  $R_2$  is -OH or H then  $R_1$  is  $\bigvee_{O_2S \longrightarrow NMe_2}$  .

56. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then

$$\mathsf{R}_2$$
 is  $\begin{picture}(20,0) \put(0,0){\line(0,0){100}} \put(0,0){\l$ 

57. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

58. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2$$
 is  $\stackrel{||}{=}$  and if  $R_2$  is -OH or H then  $R_1$  is  $\stackrel{||}{=}$ 

59. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2$$
 is  $Q$  and if  $R_2$  is -OH or H then  $R_1$  is

61. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

62. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

63. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$\begin{array}{c} & \\ \\ \\ \\ \\ \\ \\ \\ \end{array}$$

64. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$\mathsf{R}_2$$
 is 
$$\mathsf{R}_1$$
 is 
$$\mathsf{N}_1$$
 and if  $\mathsf{R}_2$  is -OH or H then 
$$\mathsf{N}_1$$

$$R_2$$
 is  $N$  and if  $R_2$  is -OH or H then  $R_1$  is  $N$   $R'$ 

- 66. (Original) The compound of claim 66 wherein each R' and R independently can be any amino acid of all possible stereochemistries and with any degree and choice of protecting group.
  - 67. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

if R
$$_2$$
 is -OH or H then R $_1$  is  ${}^{\raisebox{-1pt}{$\sim$}}_{O_2}S$ 

68. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$O = \bigvee_{N} \bigcap_{N} \bigcap_{N}$$

69. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$O = \bigvee_{N \in \mathbb{N}} \bigvee_{N \in \mathbb{N}} N Me_2$$
 and if  $R_2$  is -OH or H then  $R_1$  is  $\bigvee_{N \in \mathbb{N}} N Me_2$ 

70. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then

$$R_2 \text{ is } O = \bigvee_{NH_2}^{\searrow_{l_1}} \text{ and if } R_2 \text{ is -OH or H then } R_1 \text{ is } O = \bigvee_{NH_2}^{\searrow_{l_1}}$$

72. (Original) The compound of claim 1, wherein if R<sub>1</sub> is H or -OH then

$$R_2$$
 is  $\stackrel{\text{?}}{\sim}$  and if  $R_2$  is -OH or H then  $R_1$  is  $\stackrel{\text{?}}{\sim}$  . 
$$NH_2$$

73. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then  $R_2$  is and if  $R_2$  is -OH or H then  $R_1$  is  $NH_2$ .

74. (Original) The compound of claim 1, wherein if  $R_1$  is H or -OH then  $R_2$  is and if  $R_2$  is -OH or H then  $R_1$  is NRR'

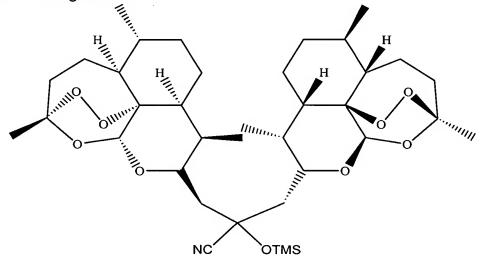
- 75. (Original) The compound of claim 74, wherein R and R' are independently of each other hydrogen, alkyl, aryl, or allyl.
- 76. (Original) The compound of claim 19 wherein said heterocyclic ring is  $\triangle_{\rm O}$  .
- 77. (Original) The compound of claim 21 wherein said heterocyclic ring is

78. (Original) The compound of claim 22 wherein said heterocyclic ring is OS=O.

79. (Original) The compound of claim 21 wherein said heterocyclic ring is OPEO .

80. (Original) The compound of claim 22 wherein said heterocyclic ring is  $\frac{1}{100}$ .

81. (Original) A compound including resolved enantiomers, diasteriomers, solvates and pharmaceutical acceptable salts thereof, said compound having the formula:



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82. (Original) A compound including resolved enantiomers, diasteriomers, solvates and pharmaceutical acceptable salts thereof, said compound having the formula:

83. (Original) A compound including resolved enantiomers, diasteriomers, solvates and pharmaceutical acceptable salts thereof, said compound having the formula:

84. (Currently amended) A method of treating cancer, which comprises administering to a patient suffering from said cancer [[a]] the compound of claim 1. or combination of compounds of claims 1. 83.

- 85. (Original) A method according to claim 84 wherein said cancer is selected from the group of cancers consisting of leukemia, non-small cell lung cancer, colon cancer, central nervous system cancer, melanoma cancer, ovarian cancer, renal cancer, prostate cancer, and breast cancer.
- 86. (Currently amended) A method for treating malaria comprising administering administering an effective amount of [[a]] the compound of compounds of claims 1-83. of claim 1.